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# Public Health Reports

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TUBERCULOSIS CONTROL ISSUE NO. 22

Editorial—A Problem in Mass Surveys

Pulmonary Infiltrates and Histoplasmin Sensitivity



## CONTENTS

	Page
Editorial—A problem in mass surveys. Francis J. Weber.....	1709
The roentgenographic appearance of persistent pulmonary infiltrates associated with sensitivity to histoplasmin. Michael L. Furcolow, Herbert L. Mantz and Ira Lewis.....	1711

### INCIDENCE OF DISEASE

United States:	
Reports from States for week ended November 15, 1947, and comparison with former years.....	1719
Weekly reports from cities:	
City reports for week ended November 8, 1947.....	1723
Rates, by geographic divisions, for a group of selected cities.....	1725
Territories and possessions:	
Puerto Rico—Notifiable diseases—5 weeks ended November 1, 1947.....	1726
Deaths during week ended November 8, 1947.....	1726
Foreign reports:	
Canada—Provinces—Communicable diseases—Week ended October 25, 1947.....	1727
Finland—Notifiable diseases—September 1947.....	1727
Reports of cholera, plague, smallpox, typhus fever, and yellow fever received during the current week—	
Cholera.....	1728
Plague.....	1728
Smallpox.....	1728
Yellow fever.....	1728

(II)

# Public Health Reports

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## EDITORIAL

### A PROBLEM IN MASS SURVEYS

A major challenge to workers in tuberculosis control is the occurrence of persistent pulmonary infiltrates among persons who are non-reactors to tuberculin. The accompanying article, The Roentgenographic Appearance of Persistent Pulmonary Infiltrates Associated with Sensitivity to Histoplasmin describes and illustrates a group of such pulmonary lesions and presents additional investigation into the subject of histoplasmin sensitivity.

Much work remains to be done to explain the marked contrast in occurrence between the rare clinical cases of histoplasmosis and the numerous pulmonary infiltrates associated with histoplasmin sensitivity. Furthermore, a great variety of these lesions can easily be mistaken for tuberculosis and the possibility of such error constitutes, in itself, an immediate problem in mass survey work.

In a recent editorial we explored the desirability of chest X-ray surveys of the adult population of the 92 major cities of the United States. Among the thousands of photofluorographs from such an extensive undertaking, a great many pulmonary lesions would be found in persons who are nonreactors to tuberculin. If a survey were conducted in the Kansas City area, it appears that many of the infiltrations detected would occur among persons who would prove to be reactors to histoplasmin but not to tuberculin. In the Far West, we would encounter, among nonreactors to tuberculin, pulmonary infiltrates resulting from coccidioidal infection. To conclude that these are the only infections to be considered would be fallacious in view of the ubiquitous nature of the fungi and the reports of the occurrence of pulmonary infiltrations associated with a variety of other fungi.

\*This is the twenty-second of a series of special issues of PUBLIC HEALTH REPORTS devoted exclusively to tuberculosis control, which will appear the first week of each month. The series began with the Mar. 1, 1946, issue. The articles in these special issues are reprinted as extracts from the PUBLIC HEALTH REPORTS. Effective with the July 5, 1946 issue, these extracts may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 10 cents a single copy. Subscriptions are obtainable at \$1.00 per year; \$1.25 foreign.

NOTE: Tuberculosis Control Issue No. 21 was published Nov. 7, 1947, PUBLIC HEALTH REPORTS, Vol. 62, No. 45. The front cover of that issue did not note, as is customary, that it was a tuberculosis control issue.

Widespread photofluorographic surveys will undoubtedly aid in securing a cross-section of the pulmonary disease in various parts of the country. Where an unusual pattern of disease is observed, similar studies should be undertaken in an attempt to solve the problem of pulmonary infiltrates in the nonreactor to tuberculin. Thorough investigation of all abnormal pulmonary findings revealed by the photofluorograph is emphatically called for by the evidence presented in this paper. Moreover, it is even more clearly made plain that a diagnosis of tuberculosis must be made on more evidence than is obtained from an X-ray film alone.

FRANCIS J. WEBER, *Medical Director,*  
*Chief, Tuberculosis Control Division.*

## THE ROENTGENOGRAPHIC APPEARANCE OF PERSISTENT PULMONARY INFILTRATES ASSOCIATED WITH SENSITIVITY TO HISTOPLASMIN

By MICHAEL L. FURCOLOW, *Surgeon, United States Public Health Service*,<sup>1</sup> HERBERT L. MANTZ, M. D., *Kansas City, Missouri*, and IRA LEWIS, *Senior Surgeon, United States Public Health Service*<sup>1</sup>

It has been known for some years that pulmonary calcifications, which were long assumed to be the end product of healed tuberculosis, are demonstrated by X-ray quite frequently in persons with a negative tuberculin test. Although the view was advanced that this phenomenon represented simply the reversion to negative of a once positive tuberculin test (1), the demonstration of a strikingly uneven geographic distribution of these cases (2) suggested that some disease other than tuberculosis was responsible. The proof of this hypothesis, and an indication that histoplasma might be the responsible organism, was furnished by Palmer (3), Christie, and Peterson (4). In the East Central States where tuberculin negative cases of pulmonary calcification are prevalent, positive reaction to intracutaneous injection of histoplasmin (a culture filtrate of the fungus *Histoplasma capsulatum*) was observed in practically all these cases, but in only a much smaller proportion of the population in that area without calcification. In some areas, such as Kansas City, the prevalence of pulmonary calcification associated with histoplasmin sensitivity was over three times as great as that associated with tuberculin sensitivity. The area of highest prevalence includes Tennessee, Kentucky, Arkansas, Missouri, Indiana, and parts of Ohio, Illinois, Kansas, and Louisiana, but the condition is far from rare in many other regions (5).

Histoplasmosis, proved to be caused by *Histoplasma capsulatum*, has been reported only as a very rare and practically uniformly fatal disease in man. It could therefore not be assumed without qualification that this widespread calcification resulted from a clinically unrecognized infection by *Histoplasma capsulatum*; the existence of an immunologically cross-reacting but much less virulent organism had to be considered. The recent detection of three nonfatal cases of histoplasmosis in Kansas City alone (6) however, somewhat bridges the gap between the rare fatal cases and the postulated common sub-clinical cases, and therefore supports the notion that a single agent may be responsible for the whole range of host response associated with histoplasmin sensitivity. For the purposes of the present paper, this point is not essential; we are concerned with the widespread existence of pulmonary lesions caused by some agent other than the tubercle bacillus.

In the comparison of a large series of roentgenograms showing calci-

<sup>1</sup> From the Office of Field Studies, Tuberculosis Control Division.



fication associated with either of the two types of sensitivity, the pattern of miliary calcification was recognized by High et al. (7) to be associated especially frequently with histoplasmin sensitivity. In the vast majority of instances, however, it was not possible to distinguish between the two diseases roentgenologically. It therefore seemed very possible that if the lesion associated with histoplasmin sensitivity also produced a visible infiltrate preceding calcification, this infiltrate could likewise not be distinguished roentgenologically from the corresponding stage of a tuberculous lesion. This resemblance would obviously be a matter of considerable practical importance in mass photofluorographic surveys for the detection of pulmonary tuberculosis in areas where histoplasmin sensitivity is prevalent.

The prevalence of calcification associated with histoplasmin sensitivity furnishes no direct measure of the prevalence of the corresponding precalcific lesions, since the duration of the latter is unknown. It was anticipated, however, that in areas such as Kansas City where histoplasmin sensitivity was observed to be extraordinarily prevalent, such lesions would not be rare. It was also expected that these transient lesions would be encountered especially frequently in children, since the proportion of the population insensitive to histoplasmin, and hence presumably susceptible to the disease, decreases with age. Accordingly, school children in Kansas City were chosen as the most suitable material for the demonstration of such precalcific lesions.

The results confirmed the expectation that uncalcified lesions associated with histoplasmin sensitivity would be found in the same geographic region as calcified lesions. There were many cases which could be diagnosed by roentgenological and laboratory procedures: tuberculosis (with positive tuberculin test), pneumonia, lung abscess, bronchiectasis, and a small group of rare diseases such as sarcoid and lymphoblastomas. In addition, there was a much larger group of persistent pulmonary infiltrates, with or without hilar adenopathy, which could not be identified by any of the usual laboratory or roentgenological procedures. There was also, of course, a large number of calcified lesions, both nodal and pulmonary, the great majority of which were associated with a negative tuberculin test. The specificity of the relation of these conditions to histoplasmin sensitivity is shown by the fact that over 90 percent of the individuals with pulmonary calcification, and an even higher proportion of those with otherwise unidentifiable chest lesions, reacted to histoplasmin, although but 30 to 40 percent of the population-sample was positive.

In tuberculosis the pathogenetic process has been followed in individuals from the negative chest X-rays and negative tuberculin test, through the appearance of the parenchymal infiltrate with concurrent change in cutaneous sensitivity, to the final and apparently irreversible

calcified focus in the lung or node associated with the positive tuberculin test. Up to the present we have no case associated with histoplasmin sensitivity and a negative tuberculin reaction in which the entire corresponding progression of events has been observed. Presumably the demonstration of a similar process in these lesions would require a longer period of observation than has yet elapsed. We do have, however, and will soon report cases, originally seen with negative chest X-rays and histoplasmin reactions, who have developed pulmonary infiltrates or hilar adenopathy or both, along with development of a positive cutaneous reaction of histoplasmin. We also have cases with similar lesions who were sensitive to the antigen when first seen, and who progressed to complete calcification of these lesions. Sontag and Allen (8) have recently described similar precalcific lesions in children in Ohio who were sensitive to histoplasmin but not to tuberculin.

The present paper illustrates the types of lesions associated with histoplasmin sensitivity which we have observed in 79 cases, together with a roentgenological classification. No figures on prevalence of pulmonary infiltrations associated with histoplasmin sensitivity will be included, for the present material is not well suited for such analysis. It may be stated, however, that among Kansas City school children, persistent pulmonary infiltrations are associated with histoplasmin sensitivity much more frequently than with tuberculin sensitivity.

It seems important to present this material at this time, without complete studies of prevalence or relation to calcification, since the infiltrations cannot be distinguished roentgenologically from active pulmonary tuberculosis. This distinction is of great practical importance inasmuch as there is no indication that the asymptomatic histoplasmin sensitive cases require any special treatment. Although the roentgenograms described here were obtained largely on school children in Kansas City, the conclusions apply to a much wider group. We have now observed a number of similar cases in an older age group (student nurses) in the same city; and preliminary studies have shown that the geographic distribution of these infiltrations parallels the extensive distribution of histoplasmin sensitive calcifications which has already been described (5). These results, to be published in detail, emphasize the danger of diagnosing pulmonary tuberculosis on the basis of X-ray films alone.

*Materials and Methods.*—The cases to be presented were derived primarily from a survey of nearly 16,000 school children in Kansas City, Mo. The survey was a cooperative project of the Board of Education, the City Health Department, the Tuberculosis Society of Kansas City, Mo., and the United States Public Health Service. Other aspects of the survey have previously been reported (7, 9, 10).

There will be described a few additional cases that were referred to the study group by private physicians through examination of contacts or through routine examinations of laboratory personnel.

An intradermal tuberculin test, a histoplasmin test, and at least two chest X-rays were taken on each child studied. The purified tuberculin (PPD-S) furnished by Dr. Florence B. Seibert of the Henry Phipps Institute of Philadelphia, Pa., was administered in a single dose of 0.0001 mg. in 0.1 cc. of diluent. The histoplasmin ( $H_3$  or  $H_{15}$ ) furnished by Drs. Chester Emmons and Arden Howell of the United States Public Health Service, was employed in 0.1 cc. of a 1/1000 dilution. In the routine screening film examinations, both 70 mm. and 14- by 17-inch films were used, but all diagnostic films were 14- by 17-inch. An attempt was made to follow with serial films as many as possible of the children whose screening examination revealed abnormal shadows.

The following criteria were employed to distinguish these lesions from the radiological manifestations of other diseases:

1. The individual has skin sensitivity to histoplasmin but not to tuberculin in the above doses. (Because coccidioidomycosis is known to cause pulmonary infiltrations (11) which are radiographically quite similar to those described herein (12), as well as calcification, (13) in a restricted region in the far western part of this country, many of these cases were tested with coccidioidin. No positive reactions were observed.)

2. The lesions must persist at least 2 months. This excludes the large group of transient pneumonic lesions.

3. Where indicated, laboratory and clinical examinations were performed to exclude tuberculosis, and as far as possible, similar conditions such as Boeck's sarcoid, sarcoidosis, Hodgkin's disease, etc.

The etiological diagnosis of histoplasmosis was made in only one case by isolation of the agent, in this series, in spite of many attempts to cultivate *Histoplasma capsulatum* from sputa or gastric washings of the other cases. It is therefore only by a process of exclusion that the infiltrations can be ascribed to whatever disease it is that gives rise to histoplasmin sensitivity. Because the methods available for excluding other diseases are quite imperfect, it is not certain in any single case that this newly recognized disease is the cause. The statistical evidence is overwhelming, however, that this disease is the cause of the large majority of these infiltrations, just as it is the cause of the calcified lesions. From the point of view of prevalence, it is likely that this disease is not overestimated, but rather is underestimated since cases sensitive to both tuberculin and histoplasmin were excluded. These histoplasmin sensitive pulmonary infiltrations are presumed to be the precursors of the histoplasmin sensitive calcifications, but the proportion which will go on to calcification cannot be estimated at present.



## RESULTS

The parenchymal lesions observed in 69 of the 72 asymptomatic cases can be conveniently classified into three groups: Nodular infiltrates, pneumonic infiltrates, and disseminated infiltrates.

Since pneumonic lesions have been observed to develop into nodular infiltrates with the passage of time, it is hardly surprising that many lesions have been encountered which are intermediate in character between the first two groups, and are consequently difficult to classify.

A large proportion of the infiltrates were associated with enlargement of the hilar lymph nodes. Three cases of lymph node enlargement without parenchymal infiltrate were observed.

*Nodular foci (figures 1 to 19).*—The lesions most frequently observed, accounting for 49 cases, were sharply circumscribed nodular shadows varying in diameter from  $\frac{1}{2}$  to  $3\frac{1}{2}$  centimeters. The associated lymph nodes were enlarged in 39 of the cases and in some the definite deposition of calcium could be seen. Nodular parenchymal foci quite often had a calcified central area. This calcified central nodule did not seem to enlarge with the passage of time, there being rather a tendency for the surrounding soft infiltrative area to melt away. The deposition of calcium in the associated lymph nodes, however, did sometimes increase. These parenchymal nodules were usually single; only about one-fourth of the individuals in this group showed more than 1 nodule. A few cases showed more than 5 nodules. Nodules were found in about equal numbers in the right and left lungs and in all parts of the lungs from apex to base.

*Pneumonic infiltration (figures 21 to 24).*—There were 17 such cases, 14 of which had associated enlargement of the hilar lymph nodes. Within the group, the most frequent finding was a persistent single patch of infiltration, often not larger than 2 cm. in diameter. Less frequently, patchy diffuse pneumonitis was scattered throughout both lungs. The X-ray picture simulated Boeck's sarcoid, but the associated changes in the bones and serum proteins were absent. This type of lesion was exceedingly chronic and sometimes accompanied by symptoms. One case included in this series showed an extensive infiltration involving most of a lobe, which closely resembled lobar pneumonia; the infiltrate cleared over a period of several months. It seems quite possible that the association with histoplasmin sensitivity in this case is fortuitous, but the persistence of the associated enlargement of the lymph nodes for  $1\frac{1}{2}$  years would be very unusual in pneumococcus or virus pneumonia.

The involvement was usually unilateral. In several cases the nodular type of lesion developed at the site of an earlier pneumonic lesion with hardening of the lesion and disappearance of the hazy, diffuse outline. Mixed types were occasionally encountered in which some of the lesions were pneumonic and others nodular in a single film.

*Disseminated infiltrates (figures 25 to 32).*—There were three such cases. These consisted of multiple, widely disseminated lesions, too numerous to count, which occupied both lung fields and varied from millet-seed-sized infiltrates to large patchy areas. There was associated enlargement of the lymph nodes in two of these cases.

When first seen, the infiltrates in two of the three cases showed evidence of central cores of calcification. The incomplete resolution of the parenchymal infiltrate with persistence of the core of calcium for a period of 2 years indicates that the zones of infiltrate surrounding these areas of calcification are apparently slow to resolve. In the third case no central core of calcification could be observed in the infiltrate when first seen although this is evident on a film 2 years later.

As has been pointed out above, the calcified stage of this type of lesion is found particularly frequently to be associated with histoplasmin sensitivity.

*Hilar and mediastinal adenopathy (fig. 20).*—The three cases of enlargement of the hilar or mediastinal lymph nodes, without associated parenchymal lesion, varied from barely perceptible to enormous enlargement. In appearance they resembled similar nodes found in tuberculous subjects. The deposition of raspberry-like calcification is evident in two of these cases that were followed for a period of 2 years. However, the deposition of calcium has not been marked during the period of follow-up, and it appears that calcification is rather slow in developing.

*Age of the children with lesions.*—Lesions were observed in children of all ages studied, from 4 to 18 years. Histoplasmin sensitivity, which is more or less permanent, increases in frequency with age; the uncalcified lesions, however, which probably persist at most for only a few years, appeared to be more frequent in the younger age groups. The data available do not permit accurate calculation of the specific frequency at various ages.

*Miscellaneous cases.*—As stated previously, a few cases have been referred to us by private physicians or hospitals or studied because of the presence of symptoms. These cases are not included among the 72 previously described. There are only 7 cases in this group but the lesions are so pronounced in some of them that their X-rays are reproduced (fig. 25, 26, 29, 30, 31, and 32). These lesions are similar to those seen among the healthy school children. Of especial interest in this group are figures 25 and 26 representing a case followed for 13 years, the original film of which shows a barely visible miliary infiltrate which eventually progressed to miliary calcification. Figures 31 and 32 represent a 4-year old child with acute symptoms and an X-ray film resembling acute miliary tuberculosis; later X-rays show almost complete disappearance of the lesions. In one case (figs. 29 and 30) the etiologic diagnosis was made by recovery of *Histoplasma capsulatum*; this case is described in detail elsewhere, Bunnell et al. (6).

## SUMMARY

1. The paper reports the roentgenologic characteristics of persistent pulmonary infiltrations found among persons who are sensitive to histoplasmin but not to tuberculin. Among 72 asymptomatic cases in school children in Kansas City, Mo., only a few were limited to the lymph nodes, a few were of the disseminated type, and approximately two-thirds were nodular, sharply circumscribed foci. The remaining one-fourth were diffuse patchy infiltrations with poorly defined borders, which sometimes developed into nodular lesions. Similar lesions were seen in a few patients whose symptoms appeared to arise from this infection.

2. In some of the lesions a central core of calcification was noted originally or in later films. The lesions tend to calcify slowly, and many infiltrations persist without complete calcification during the 2 years of observation.

3. In regions where histoplasmin sensitivity is widespread, pulmonary infiltrations as well as calcifications are frequently nontuberculous, and can be differentiated from tuberculosis at present only by skin tests.

NOTE: The accompanying illustrations are taken from cases, mentioned in the text, with skin sensitivity to histoplasmin but not to tuberculin. The authors are deeply indebted to Mr. Frank H. Mortimer, Director of the Division of Typography and Design, Government Printing Office, and his staff for the experimental work and painstaking care which made possible these reproductions.

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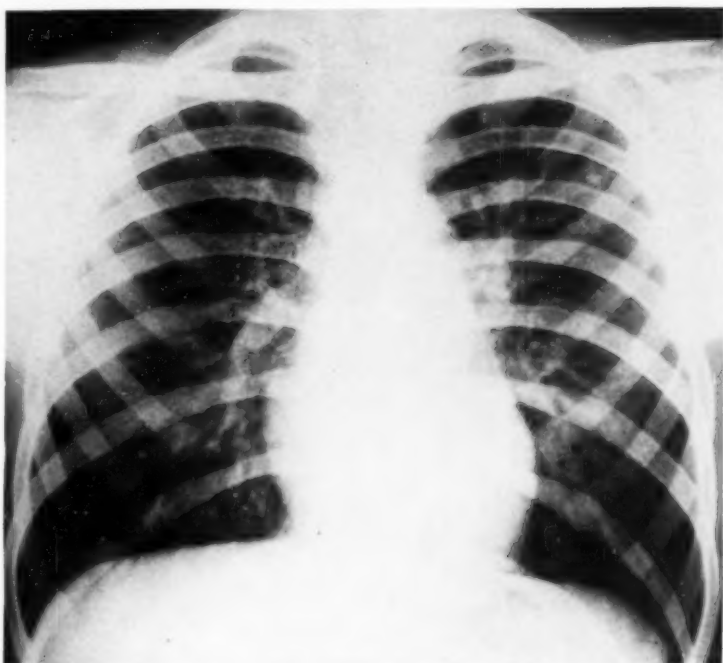


FIGURE 1.—White male, age 8. Nodular lesion (left second ant. interspace) associated with hilar adenopathy.

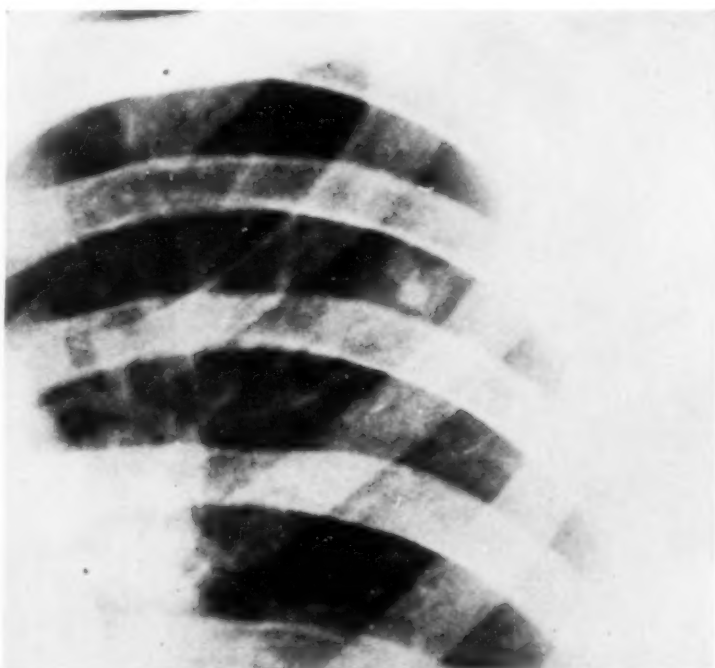


FIGURE 2.—Same case as above. Lesion actual size. Note central core of calcium—"Halo calcification"





FIGURE 3.—White female, age 15. Nodular lesion (left third ant. interspace) associated with hilar adenopathy.



FIGURE 4.—Same as above. Lesion actual size. Note central core of calcium—"Halo calcification."

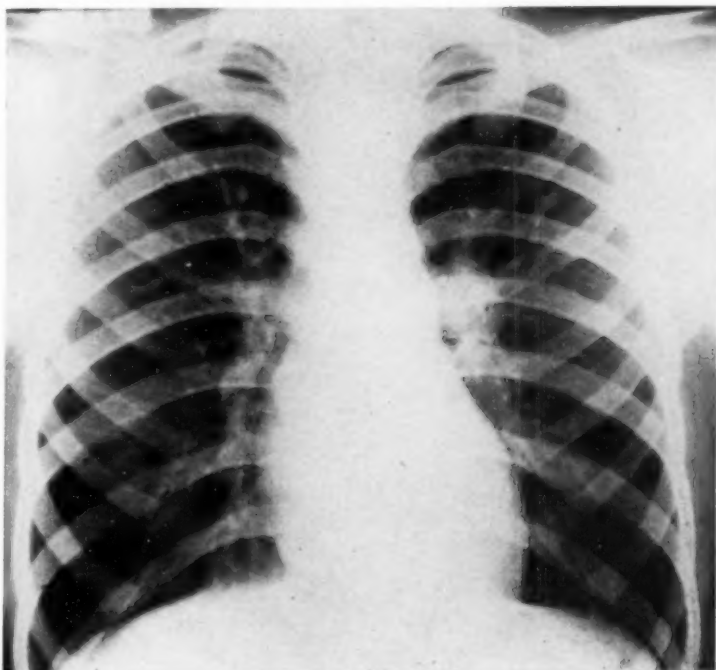


FIGURE 5.—White female, age 10. Nodular lesion (left second ant. interspace) associated with hilar adenopathy.

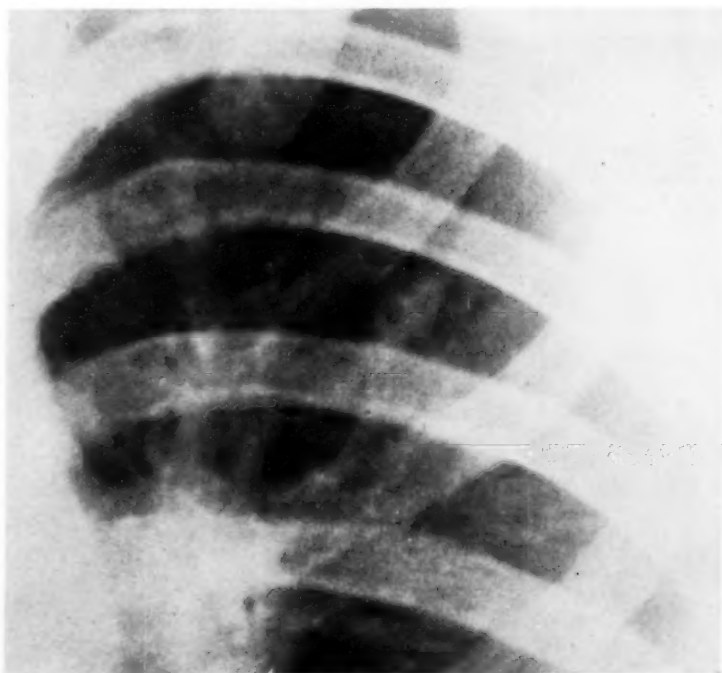


FIGURE 6.—Same case as above. Lesion actual size.

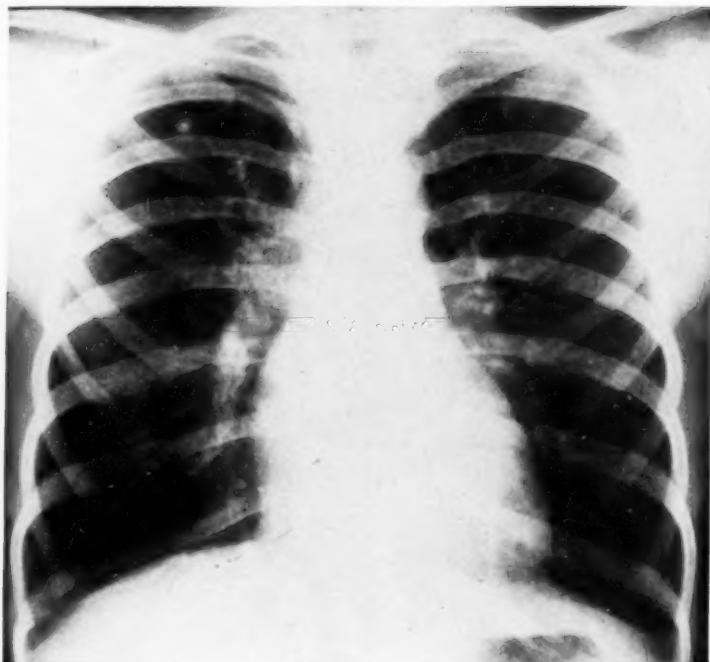


FIGURE 7.—White female, age 8. Nodular lesion with central core of calcification (right first ant. interspace) associated with hilar adenopathy.

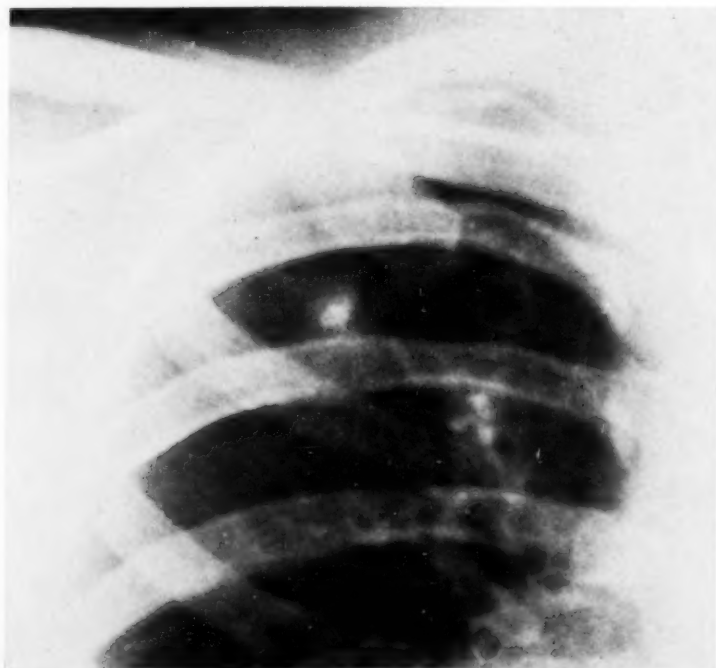


FIGURE 8.—Same case as above. Lesion actual size.

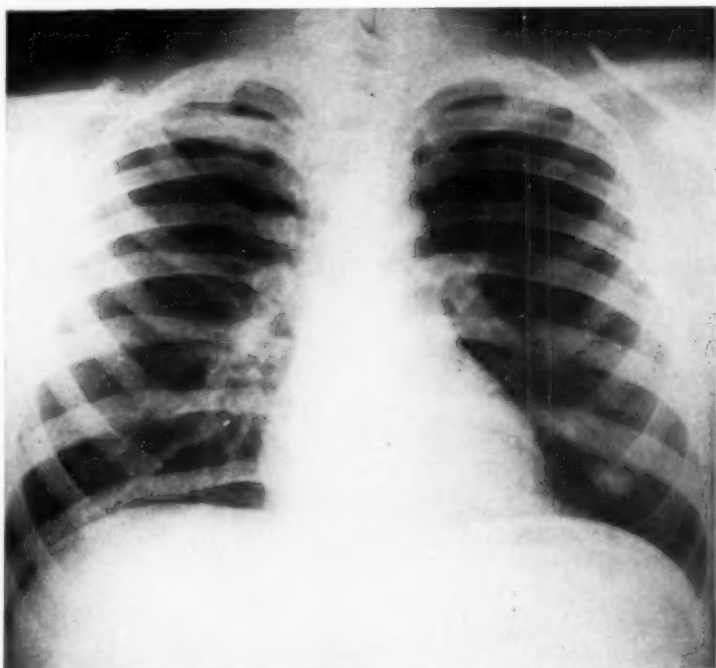


FIGURE 9.—White male, age 12. Nodular lesion, left base.

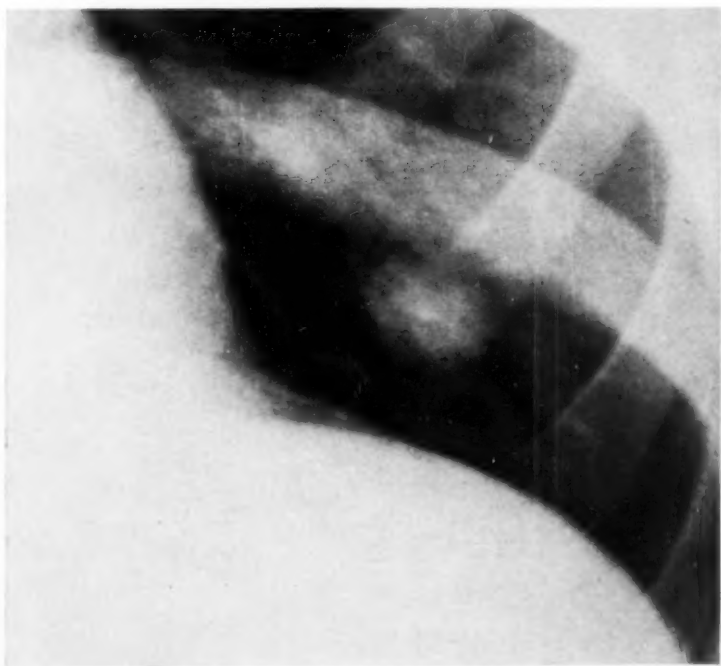
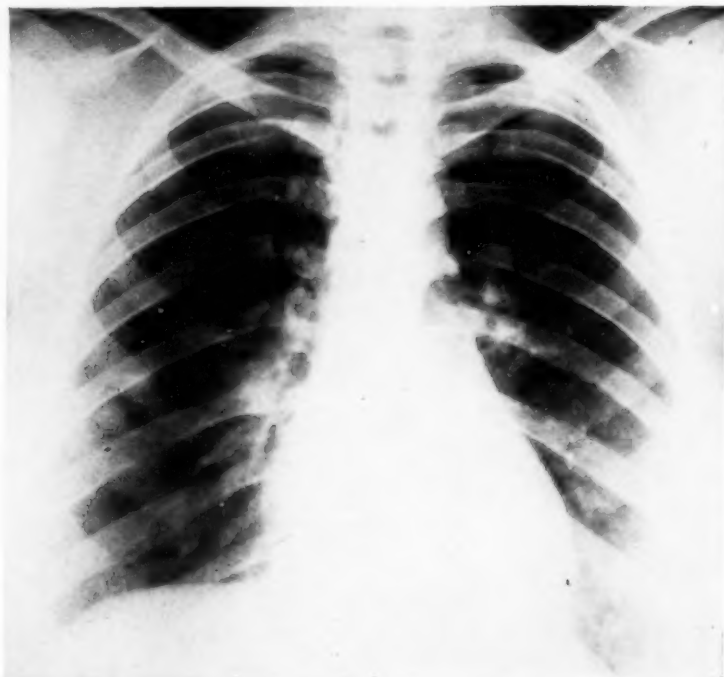
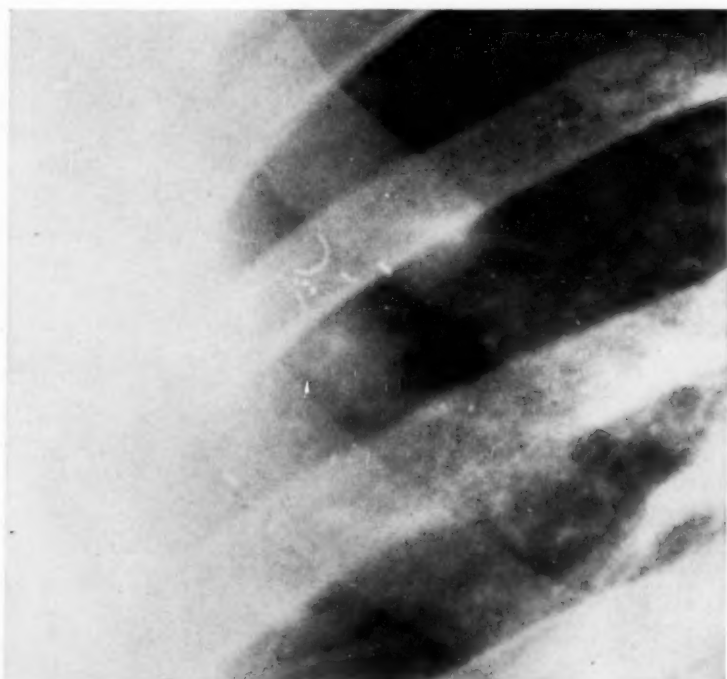


FIGURE 10.—Same case as above. Lesion actual size.



**FIGURE 11.**—White female, age 16. Nodular lesions (underlying fourth ant. rib and in fourth ant. interspace) associated with hilar adenopathy.



**FIGURE 12.**—Same case as above. Lesion actual size.



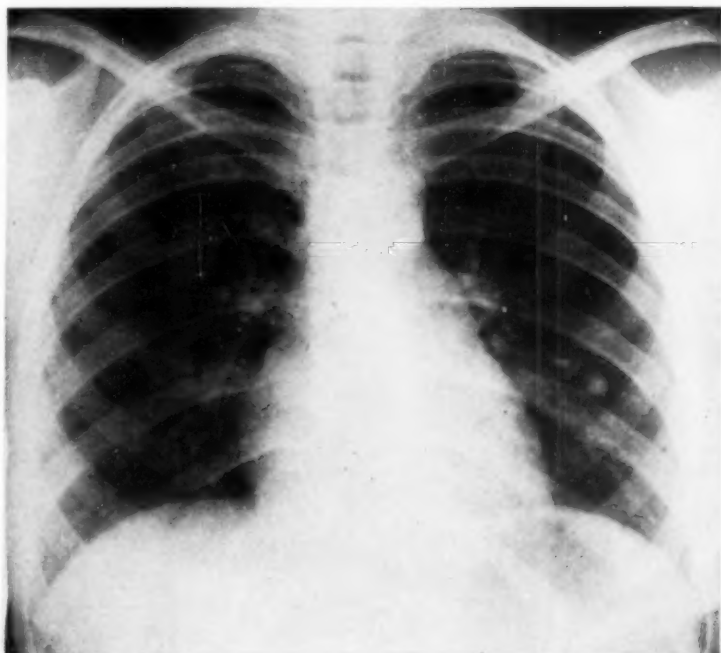


FIGURE 13.—Colored female, age 13. Nodular lesion, third left ant. interspace.

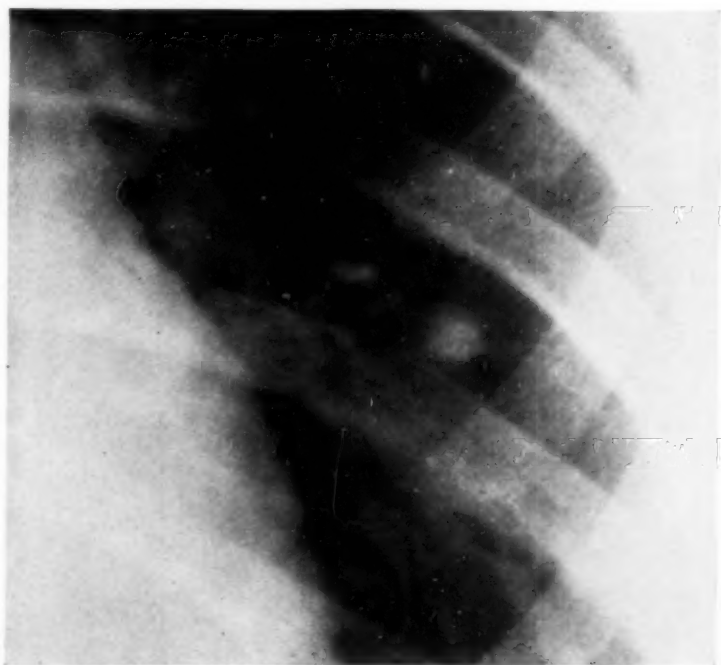


FIGURE 14.—Same case as above. Lesion actual size.

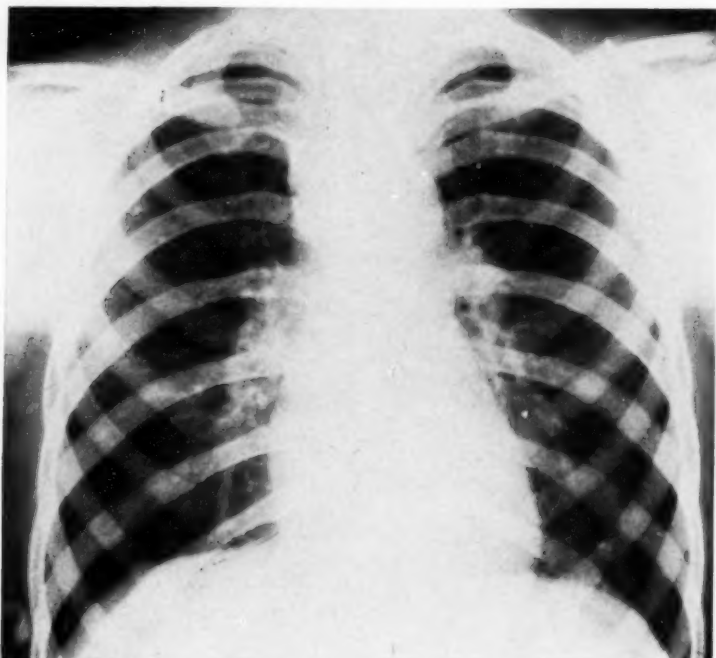


FIGURE 15.—White female, age 7. Nodular lesion (right second ant. interspace) associated with partially calcified mediastinal adenopathy.



FIGURE 16.—Same case as above. Lesion actual size. Note core of calcification in lesion.

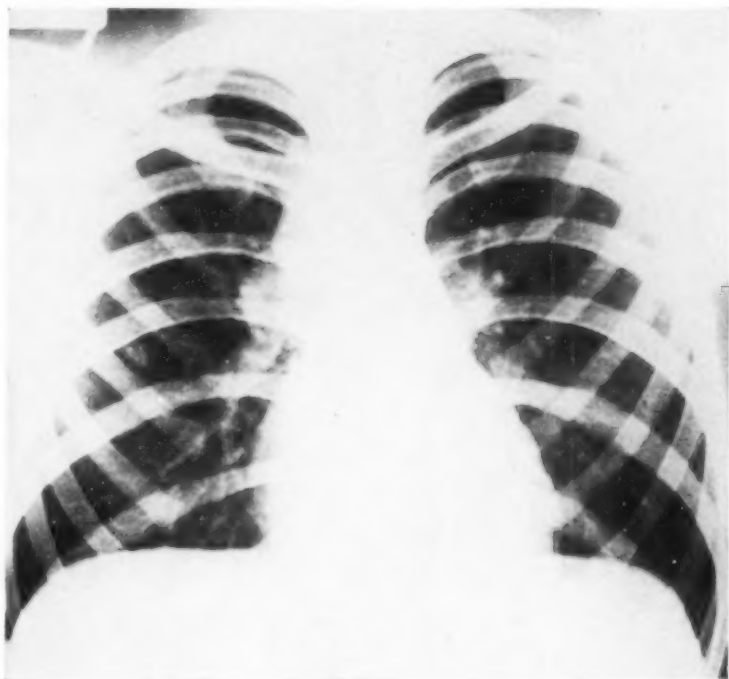


FIGURE 17.—Colored male, age 10. Nodular lesion (right third ant. interspace) associated with partially calcified mediastinal and hilar adenopathy.

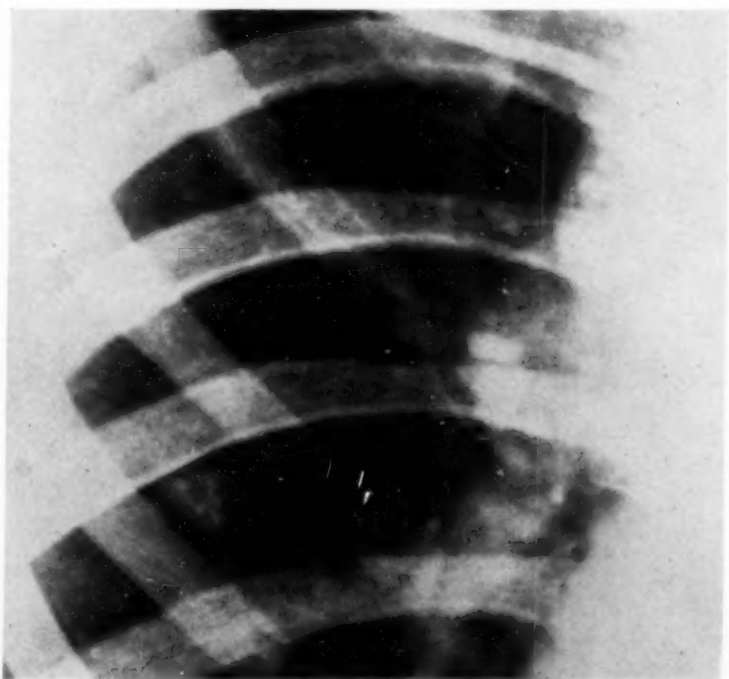


FIGURE 18.—Same case as above. Lesion actual size.

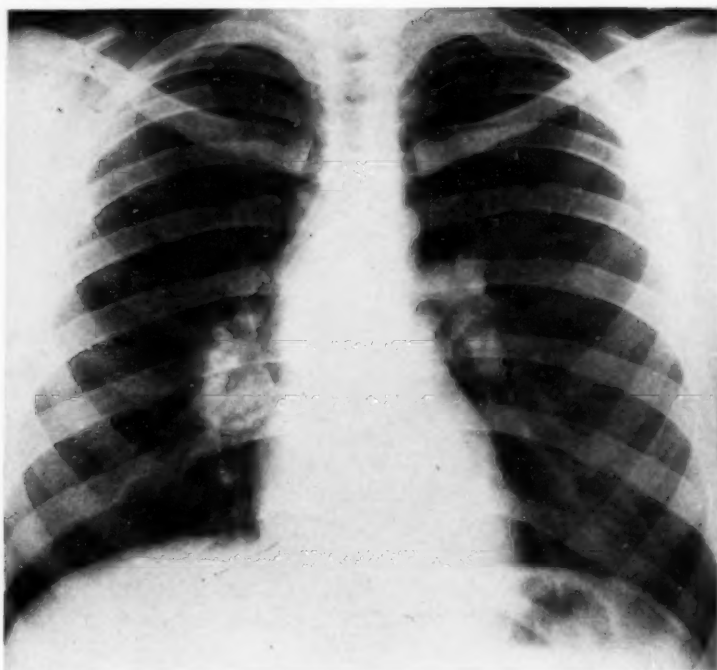


FIGURE 19.—White female, age 11. Nodular lesion adjacent to right hilum. Associated with marked hilar and mediastinal adenopathy, partially calcified.

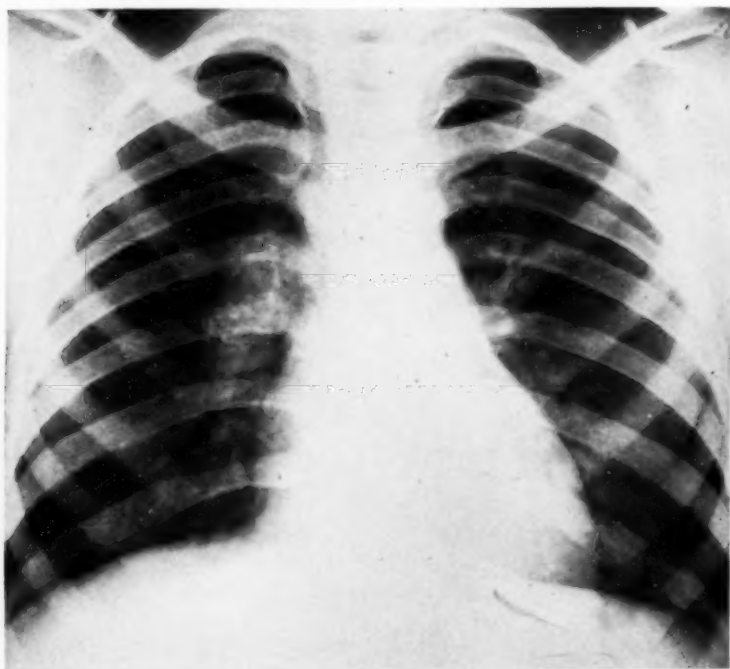
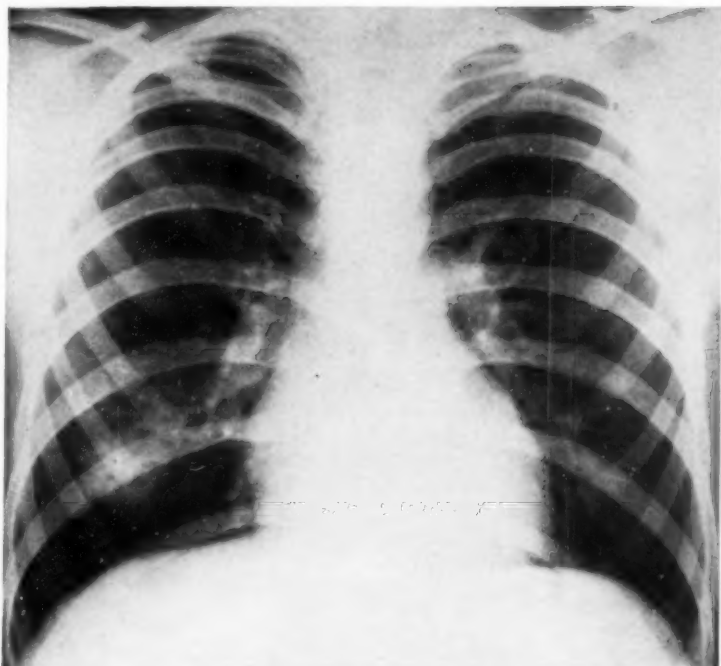
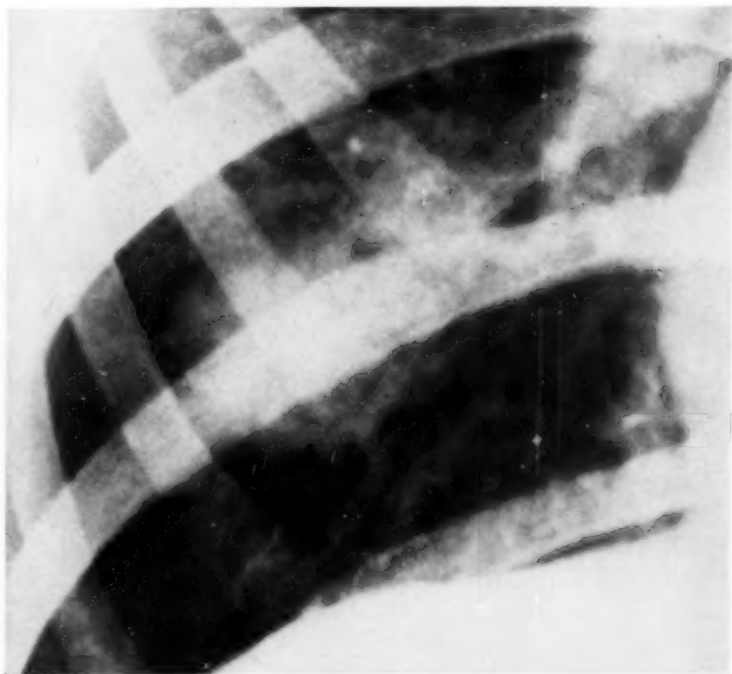


FIGURE 20.—Colored male, age 10. Marked hilar adenopathy, partially calcified, with no parenchymal lesion.



**FIGURE 21.**—White female, age 11. Pneumonic infiltrate in the right base. This has been present for 14 months.



**FIGURE 22.**—Same case as above. Lesion actual size.



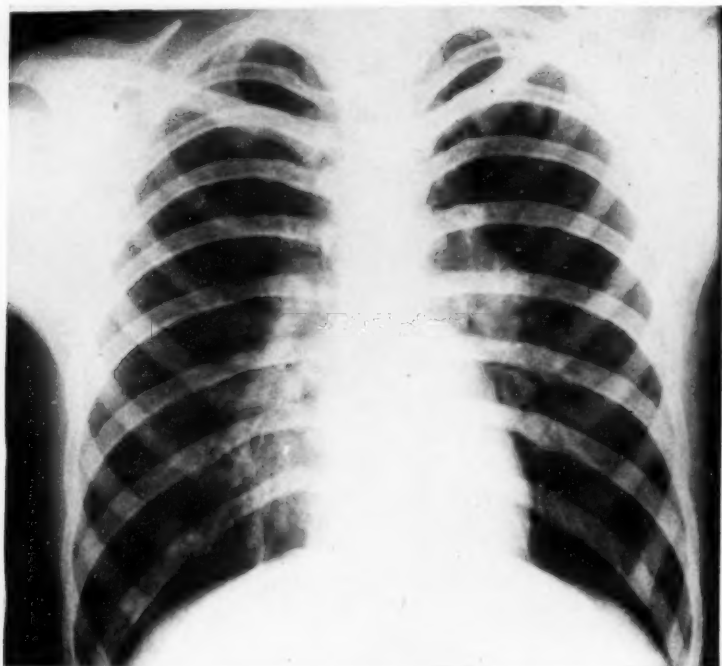


FIGURE 23.—White male, age 13. Pneumonic infiltrate in left first and second and right first ant. interspaces associated with marked hilar adenopathy.

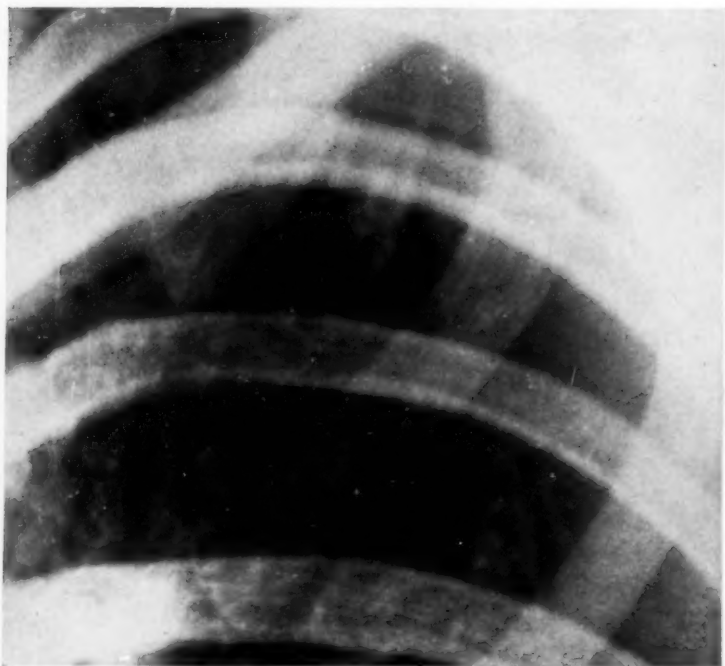


FIGURE 24.—Same case as above. Lesion actual size.

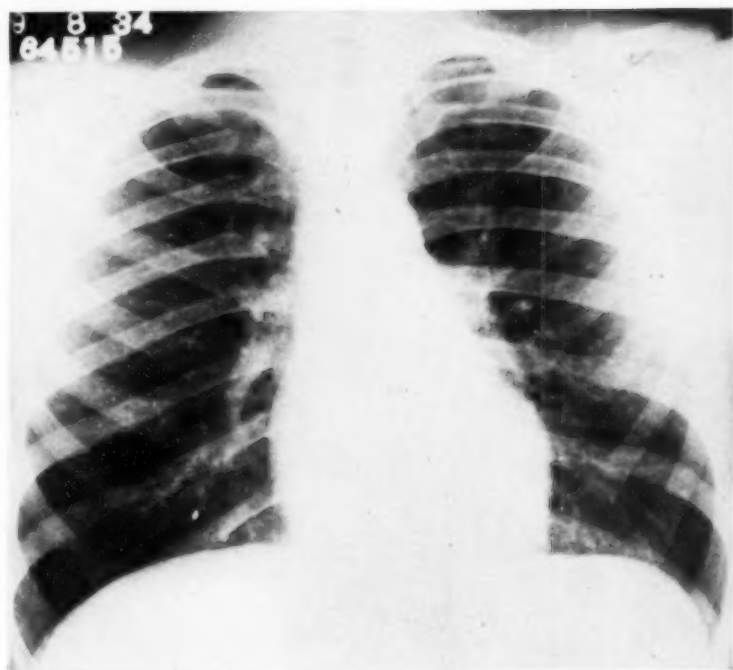


FIGURE 25.—White male, age 14. Disseminated lesions which are barely visible throughout both lung fields.



FIGURE 26.—Same case as above. Film taken 8 years later showing lesions now completely calcified.



FIGURE 27.—White female, age 6. Partially calcified disseminated lesions throughout both lung fields.

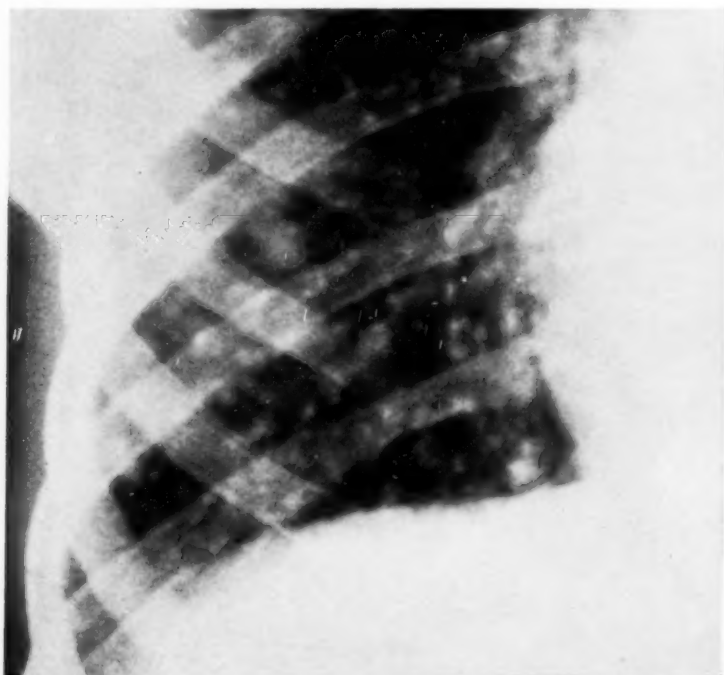


FIGURE 28.—Same case as above. Lesions actual size.

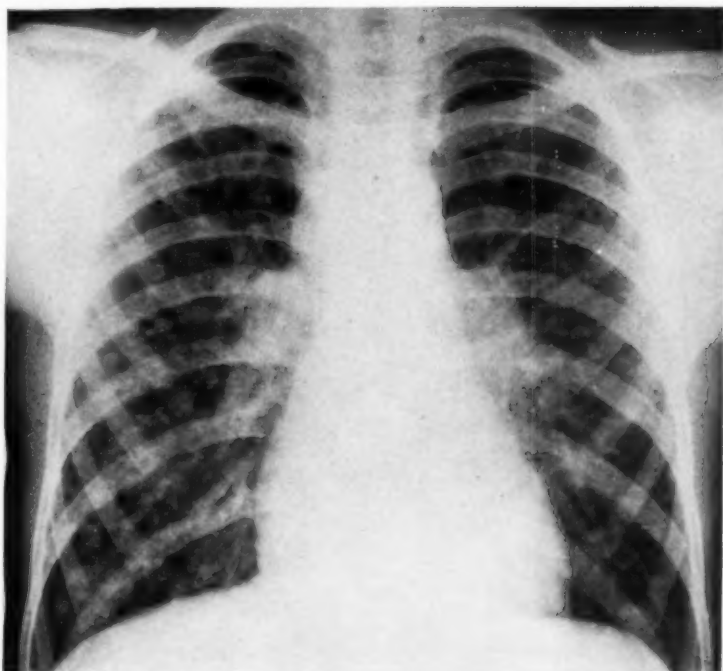


FIGURE 29.—White male, age 12. Disseminated lesions throughout both lung fields. *Histoplasma capsulatum* organism recovered from gastric washings.

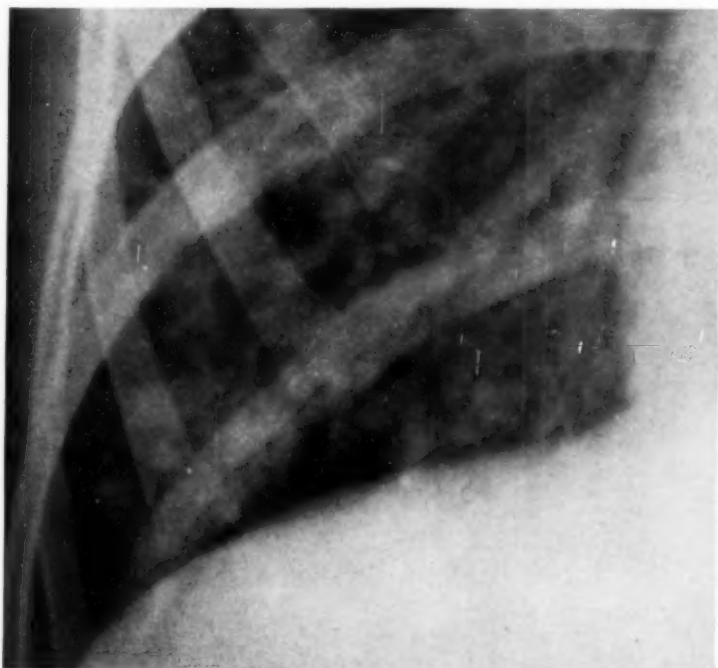


FIGURE 30.—Same case as above. Lesions actual size.

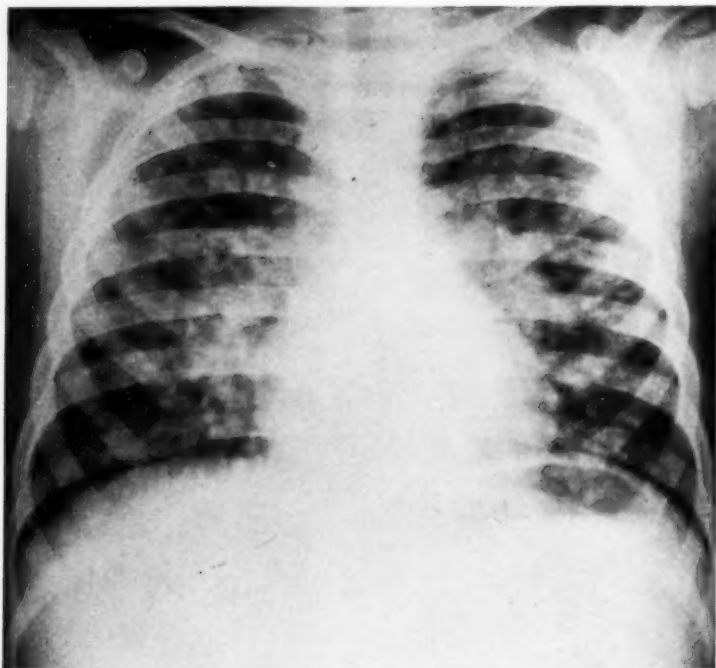


FIGURE 31.—White male, age 4. Disseminated lesions and bilateral hilar adenopathy.

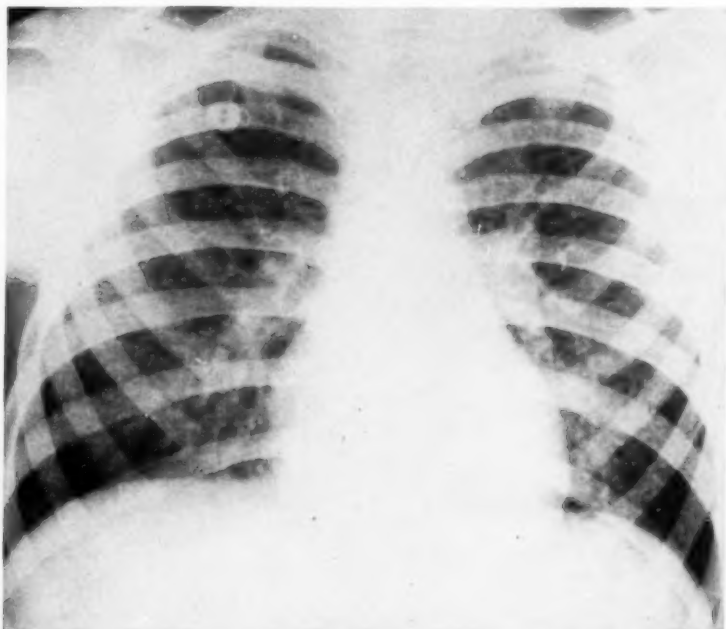


FIGURE 32.—Same case as above. Film 7 months later. Marked resolution of process, but hilar adenopathy persists.



# INCIDENCE OF DISEASE

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring*

## UNITED STATES

### REPORTS FROM STATES FOR WEEK ENDED NOVEMBER 15, 1947

#### Summary

A total of 256 cases of poliomyelitis was reported for the current week, as compared with 269 last week, 463 for the corresponding week last year, and a 5-year (1942-46) median of 256. Of the 8 States reporting more than 11 cases, as follows (last week's figures in parentheses), 4 showed increases: New York 35 (27), Pennsylvania 13 (14), Ohio 23 (50), Michigan 13 (15), North Carolina 26 (10), Tennessee 13 (5), Idaho 13 (23), California 17 (11). The total reported since March 15 (average date of seasonal low incidence) is 9,459, as compared with 23,427 for the same period last year and a 5-year median of 12,531.

Of the total of 2,162 cases of influenza (last week 1,683, 5-year median 1,863), 1,726 (approximately 80 percent, last week 73 percent) occurred in the 3 States reporting more than 132 cases each, as follows (last week's figures in parentheses): Virginia 339 (184), South Carolina 427 (314), Texas 960 (731). Of the total reported since July 26 (average seasonal low date) 17,078 cases, as compared with 16,565 for the same period last year and a 5-year median of 15,870, the same 3 States, with less than 9 percent of the population, reported 13,774 (81 percent), and for the same periods of the past 4 years have reported from 74 percent to 81 percent of the respective totals.

No occurrence of smallpox was reported for the week. One case of anthrax occurred (in New Jersey), 13 cases of infectious encephalitis (last week 16, 5-year median 10), 1 case of Rocky Mountain spotted fever (in Oklahoma), 8 cases of tularemia (in 7 States), and 81 cases of undulant fever (last week 110).

The total of 31 cases of endemic typhus fever is a smaller number than reported for the corresponding week of any of the past 8 years. The total since March 29 is 1,226 (less than half that for the same period of any of the past 5 years), as compared with 2,511 for the same period last year and a 5-year median of 3,293.

A total of 9,342 deaths was recorded during the week in 93 large cities of the United States, as compared with 8,638 last week, 8,961 and 8,836, respectively, for the corresponding weeks of 1946 and 1945, and a 3-year (1944-46) median of 8,836. The total for the year to date is 421,332, as compared with 414,559 for the same period last year. Infant deaths during the week in the same cities totaled 721, as compared with 688 last week and a 3-year median of 616. The cumulative figure is 33,884, as compared with 30,423 for the same period last year.

*Telegraphic morbidity reports from State health officers for the week ended Nov. 15, 1947, and comparison with corresponding week of 1946 and 5-year median*

In these tables a zero indicates a definite report, while leaders imply that, although none was reported, cases may have occurred.

Division and State	Diphtheria			Influenza			Measles			Meningitis, meningococcus		
	Week ended—		Median 1942-46	Week ended—		Median 1942-46	Week ended—		Median 1942-46	Week ended—		Median 1942-46
	Nov. 15, 1947	Nov. 16, 1946		Nov. 15, 1947	Nov. 16, 1946		Nov. 15, 1947	Nov. 16, 1946		Nov. 15, 1947	Nov. 16, 1946	
NEW ENGLAND												
Maine.....	3	6	1	—	—	—	1	180	5	0	2	1
New Hampshire.....	0	0	0	—	—	—	—	51	20	0	0	0
Vermont.....	1	1	0	—	—	—	—	59	2	0	0	0
Massachusetts.....	3	13	4	—	—	—	30	170	170	1	1	4
Rhode Island.....	0	1	1	1	1	1	—	3	2	1	0	0
Connecticut.....	0	2	2	1	4	3	5	7	9	5	1	3
MIDDLE ATLANTIC												
New York.....	17	16	13	(1)	10	15	93	243	207	2	7	12
New Jersey.....	8	8	4	0	3	4	61	19	19	0	4	4
Pennsylvania.....	10	15	10	(7)	12	12	45	164	222	4	5	8
EAST NORTH CENTRAL												
Ohio.....	14	12	14	—	5	5	25	82	21	5	1	6
Indiana.....	15	7	11	3	—	9	3	8	8	1	0	1
Illinois.....	2	6	7	3	1	4	164	15	33	2	5	8
Michigan <sup>1</sup> .....	12	4	9	1	1	1	450	52	52	1	2	5
Wisconsin.....	0	3	3	—	28	28	51	47	47	0	2	2
WEST NORTH CENTRAL												
Minnesota.....	4	9	9	—	—	—	155	2	6	1	0	2
Iowa.....	3	3	4	—	—	—	5	6	9	1	1	1
Missouri.....	3	10	12	7	—	1	2	1	4	1	1	2
North Dakota.....	1	0	2	1	—	—	38	2	2	0	0	1
South Dakota.....	0	0	3	—	—	—	17	—	4	0	0	0
Nebraska.....	1	0	2	2	—	8	9	8	8	1	0	0
Kansas.....	5	6	8	3	2	1	3	6	8	0	0	2
SOUTH ATLANTIC												
Delaware.....	0	0	0	—	—	—	1	—	1	0	0	1
Maryland <sup>1</sup> .....	3	9	9	1	1	3	2	8	8	2	2	3
District of Columbia.....	0	0	0	—	—	—	2	2	2	0	0	0
Virginia.....	8	26	25	339	317	205	45	44	28	0	0	3
West Virginia.....	5	3	5	16	50	25	49	19	19	1	1	1
North Carolina.....	32	12	34	—	—	1	2	100	7	0	1	1
South Carolina.....	22	17	17	427	309	309	15	7	6	1	0	1
Georgia.....	34	12	23	14	14	34	4	26	8	0	0	2
Florida.....	3	18	18	—	11	4	100	9	9	0	1	2
EAST SOUTH CENTRAL												
Kentucky.....	19	30	12	—	—	1	—	—	11	0	0	1
Tennessee.....	12	12	15	27	30	28	14	9	14	1	4	4
Alabama.....	15	11	25	11	21	53	1	21	3	1	2	3
Mississippi <sup>1</sup> .....	12	12	12	16	—	—	4	—	—	0	1	1
WEST SOUTH CENTRAL												
Arkansas.....	7	9	11	64	12	45	5	9	8	1	1	1
Louisiana.....	1	13	13	—	1	10	6	2	2	0	4	3
Oklahoma.....	7	4	12	132	46	46	—	3	2	1	2	1
Texas.....	41	32	58	960	1,039	993	47	66	45	6	2	2
MOUNTAIN												
Montana.....	6	2	2	8	—	5	66	45	10	0	1	0
Idaho.....	0	1	1	6	8	3	1	10	10	0	0	0
Wyoming.....	0	3	0	—	15	8	8	1	3	0	0	0
Colorado.....	12	8	8	43	25	30	22	6	6	3	1	1
New Mexico.....	2	1	1	—	—	1	2	8	3	0	0	0
Arizona.....	3	4	4	58	130	84	4	16	3	0	0	0
Utah <sup>1</sup> .....	0	0	0	—	1	6	9	5	5	0	0	0
Nevada.....	0	1	0	—	—	—	—	1	1	0	0	0
PACIFIC												
Washington.....	1	3	4	—	—	—	14	9	49	0	0	1
Oregon.....	2	1	2	10	1	10	22	13	16	1	0	2
California.....	9	27	27	2	15	19	94	45	64	5	10	11
Total.....	358	393	493	2,162	2,104	1,863	1,696	1,609	1,848	49	65	107
46 weeks.....	10,511	14,066	13,432	318,591	206,762	95,943	195,760	649,949	561,941	3,070	5,257	7,314
Seasonal low week <sup>2</sup> .....	(27th) July 5-11			(30th) July 26-Aug. 1			(35th) Aug. 30-Sept. 5			(37th) Sept. 13-19		
Total since low.....	4,214	5,438	6,013	17,078	16,565	15,870	10,258	9,864	11,355	429	591	810

<sup>1</sup> New York City only. <sup>2</sup> Philadelphia only.

<sup>3</sup> Period ended earlier than Saturday.

<sup>4</sup> Dates between which the approximate low week ends. The specific date will vary from year to year.

Telegraphic morbidity reports from State health officers for the week ended Nov. 15, 1947, and comparison with corresponding week of 1946 and 5-year median—Con.

Division and State	Polio-myelitis			Scarlet fever			Smallpox			Typhoid and para-typhoid fever		
	Week ended—		Med-ian 1942-46	Week ended—		Med-ian 1942-46	Week ended—		Med-ian 1942-46	Week ended—		Med-ian 1942-46
	Nov. 15, 1947	Nov. 16, 1946		Nov. 15, 1947	Nov. 16, 1946		Nov. 15, 1947	Nov. 16, 1946		Nov. 15, 1947 <sup>1</sup>	Nov. 16, 1946	
NEW ENGLAND												
Maine.....	1	1	0	21	35	33	0	0	0	0	0	0
New Hampshire.....	0	3	0	2	2	4	0	0	0	0	0	0
Vermont.....	1	3	1	5	5	5	0	0	0	1	0	0
Massachusetts.....	2	9	9	72	74	175	0	0	0	3	3	2
Rhode Island.....	0	1	1	3	14	9	0	0	0	0	0	0
Connecticut.....	2	4	4	15	17	31	0	0	0	1	1	1
MIDDLE ATLANTIC												
New York.....	35	44	18	111	162	237	0	0	0	3	2	6
New Jersey.....	8	5	5	34	46	50	0	0	0	1	0	1
Pennsylvania.....	13	6	6	96	106	149	0	0	0	3	3	4
EAST NORTH CENTRAL												
Ohio.....	23	5	5	148	168	240	0	0	0	0	3	2
Indiana.....	6	6	2	52	50	58	0	0	2	1	0	1
Illinois.....	11	47	12	58	108	136	0	0	0	1	0	2
Michigan <sup>2</sup> .....	13	33	4	81	141	129	0	0	0	6	1	1
Wisconsin.....	1	18	5	35	49	94	0	0	1	3	1	0
WEST NORTH CENTRAL												
Minnesota.....	9	29	7	50	26	50	0	0	0	0	0	0
Iowa.....	4	11	3	27	29	50	0	0	0	1	1	4
Missouri.....	1	26	6	18	23	60	0	1	0	2	0	0
North Dakota.....	1	4	0	4	5	10	0	1	0	0	0	0
South Dakota.....	1	1	0	8	2	10	0	0	0	0	0	0
Nebraska.....	3	13	4	55	27	17	0	0	1	0	0	0
Kansas.....	5	26	2	23	34	74	0	0	0	0	0	0
SOUTH ATLANTIC												
Delaware.....	1	1	0	7	6	6	0	0	0	0	0	0
Maryland <sup>2</sup> .....	2	4	2	17	24	32	0	0	0	2	0	3
District of Columbia.....	1	1	1	11	7	12	0	0	0	1	0	0
Virginia.....	2	12	1	45	35	84	0	0	0	11	2	2
West Virginia.....	1	2	1	27	29	79	0	0	0	0	1	0
North Carolina.....	26	6	4	35	33	83	0	0	0	1	0	1
South Carolina.....	4	0	2	9	11	12	0	0	0	1	1	1
Georgia.....	4	3	1	26	5	29	0	0	0	6	2	2
Florida.....	2	9	0	9	10	9	0	0	0	3	3	2
EAST SOUTH CENTRAL												
Kentucky.....	7	1	1	33	41	56	0	0	0	3	2	2
Tennessee.....	13	7	2	73	34	68	0	0	0	0	1	3
Alabama.....	0	3	1	14	23	31	0	0	0	0	1	1
Mississippi <sup>2</sup> .....	4	10	3	9	10	20	0	0	0	1	3	2
WEST SOUTH CENTRAL												
Arkansas.....	2	8	1	10	1	12	0	0	0	0	1	4
Louisiana.....	0	13	1	4	4	10	0	0	0	2	3	4
Oklahoma.....	0	11	1	5	9	20	0	0	0	0	0	0
Texas.....	1	18	12	41	41	62	0	0	0	9	13	13
MOUNTAIN												
Montana.....	0	1	0	10	8	18	0	0	0	0	0	1
Idaho.....	13	3	1	16	22	19	0	0	0	1	1	1
Wyoming.....	0	1	0	2	4	5	0	0	0	0	0	0
Colorado.....	1	9	2	28	27	36	0	0	0	1	0	1
New Mexico.....	1	2	1	3	5	10	0	0	0	0	1	1
Arizona.....	1	1	0	11	3	11	0	0	0	0	1	1
Utah <sup>2</sup> .....	0	1	1	5	10	15	0	0	0	1	0	0
Nevada.....	0	0	0	0	0	0	0	0	0	0	0	9
PACIFIC												
Washington.....	6	11	11	37	42	42	0	0	0	1	2	2
Oregon.....	7	2	4	18	10	26	0	0	0	0	1	0
California.....	17	28	28	81	149	223	0	0	0	5	3	2
Total.....	256	463	256	1,504	1,726	2,683	0	2	9	75	57	91
46 weeks.....	10,071	23,894	12,928	72,802	100,983	121,996	153	319	353	3,550	3,735	5,046
Seasonal low week <sup>2</sup> .....	(11th) Mar. 15-21			(32d) Aug. 9-15			(35th) Aug. 30-Sept. 5			(11th) Mar. 15-21		
Total since low.....	9,459 23,427 12,531			10,789 14,688 22,136			6 40 46			3,074 3,260 4,230		

<sup>1</sup> Period ended earlier than Saturday.

<sup>2</sup> Dates between which the approximate low week ends. The specific date will vary from year to year.

<sup>3</sup> Including paratyphoid fever reported separately, as follows: Massachusetts 3 (salmonella infection); Pennsylvania 1; Indiana 1; Michigan 1; Virginia 4; Georgia 2; California 1.

Telegraphic morbidity reports from State health officers for the week ended Nov. 15, 1947, and comparison with corresponding week of 1946 and 5-year median—Con.

Division and State	Whooping cough			Week ended November 15, 1947								
	Week ended—		Median, 1942-46	Dysentery			Encephalitis, infectious	Rocky Mt. spotted fever	Tularemia	Typhus fever, endemic	Undulant fever	
	Nov. 15, 1947	Nov. 16, 1946		Amebic	Bacillary	Un- spec- ified						
NEW ENGLAND												
Maine.....	17	20	55									1
New Hampshire.....	5	10	10									
Vermont.....	115	12	37									
Massachusetts.....	105	120	122		9							
Rhode Island.....	6	27	26									
Connecticut.....	56	23	48	1								
MIDDLE ATLANTIC												
New York.....	168	258	204	7			1					3
New Jersey.....	121	103	135	1								3
Pennsylvania.....	116	130	164	1			1					4
EAST NORTH CENTRAL												
Ohio.....	152	53	101	1								1
Indiana.....	67	38	31			5			1			1
Illinois.....	64	90	90	6	1		1					6
Michigan <sup>1</sup> .....	231	160	160	1	2							8
Wisconsin.....	170	238	153				1					3
WEST NORTH CENTRAL												
Minnesota.....	60	9	38	1	1							5
Iowa.....	13	19	17				2					8
Missouri.....	15	17	21						1			6
North Dakota.....	6		5	6			3					
South Dakota.....	9		3									1
Nebraska.....	20	6	6	3			1					
Kansas.....	9	19	31				1		1			2
SOUTH ATLANTIC												
Delaware.....	2	7	1					(?)				
Maryland <sup>1</sup> .....	59	50	74			2						
District of Columbia.....	12	4	7									
Virginia.....	82	91	46	2		45			1			1
West Virginia.....	31	6	22									
North Carolina.....	38	37	60									1
South Carolina.....	86	29	53	1	4							7
Georgia.....		1	10		2							2
Florida.....	11	34	7	1	1							
EAST SOUTH CENTRAL												
Kentucky.....	33	7	45				1					
Tennessee.....	62	25	25	1		5						5
Alabama.....	26	2	26						2			4
Mississippi <sup>1</sup> .....	3			1	2					1		1
WEST SOUTH CENTRAL												
Arkansas.....	23	23	23	16	3	1			1	1		3
Louisiana.....	8	4	2	1						1		
Oklahoma.....	13	5	8	2				1	1			
Texas.....	207	126	126	21	322	65			1	11		6
MOUNTAIN												
Montana.....	8	5	9									
Idaho.....	24		4									
Wyoming.....	6	11	4									
Colorado.....	91	2	24									4
New Mexico.....	10	10	2		4							
Arizona.....	10	8	8			17						
Utah <sup>1</sup> .....	21	5	12									
Nevada.....		2										
PACIFIC												
Washington.....	19	22	23									1
Oregon.....	8	3	6									
California.....	84	40	104	3	3							1
Total.....	2,502	1,911	2,268	77	354	140	13	1	8	31		81
Same week, 1946.....	1,911			70	331	115	6	9	21	66		125
Median, 1942-46.....	2,268			41	331	115	10	11	11	110		* 99
46 weeks: 1947.....	138,514			2,651	14,257	8,809	589	7,544	1,235	1,787	5,513	
1946.....	87,574			2,165	14,634	5,785	574	564	834	3,120	4,716	
Median, 1942-46.....	111,507			1,740	15,276	6,991	579	451	714	3,030	* 4,587	

<sup>1</sup> Period ended earlier than Saturday.

<sup>2</sup> Delayed reports (included in cumulative totals only): Rocky Mountain spotted fever, Maryland 2 cases.

\* 2-year average, 1945-46.

Anthrax: New Jersey 1 case.

Territory of Hawaii, week ended November 15, 1947: Bacillary dysentery 1, measles 1, endemic typhus fever 2, whooping cough 18. Correction: Week ended November 8, whooping cough 24 cases (instead of 10).

## WEEKLY REPORTS FROM CITIES \*

City reports for week ended Nov. 8, 1947

This table lists the reports from 85 cities of more than 10,000 population distributed throughout the United States, and represents a cross section of the current urban incidence of the diseases included in the table.

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Poliomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
NEW ENGLAND												
Maine:												
Portland.....	0	0		0		0	0	3	0	0	0	3
New Hampshire:												
Concord.....	0	0		0		0	1	0	0	0	0	
Vermont:												
Barre.....	0	0		0		0	0	0	0	0	0	
Massachusetts:												
Boston.....	8	0		0	32	1	3	1	15	0	0	16
Fall River.....	0	0		0	1	0	1	0	0	0	0	5
Springfield.....	0	0		0	1	0	2	1	0	0	0	13
Worcester.....	0	0		0	1	0	10	0	11	0	1	8
Rhode Island:												
Providence.....	0	0		0		0	1	0	2	0	0	27
Connecticut:												
Bridgeport.....	0	0		0		0	0	0	0	0	0	1
Hartford.....	0	0		0	6	0	1	0	3	0	0	5
New Haven.....	0	0		0		0	1	0	3	0	0	7
MIDDLE ATLANTIC												
New York:												
Buffalo.....	1	0		1		2	5	1	4	0	0	7
New York.....	13	1	2	1	76	1	44	5	34	0	3	35
Rochester.....	0	0		0		0	4	2	6	0	0	6
Syracuse.....	0	0		0		0	1	1	2	0	0	28
New Jersey:												
Camden.....	1	0		0		0	0	0	0	0	0	
Newark.....	0	0		0	1	0	4	0	4	0	0	14
Trenton.....	0	0		0		0	4	0	0	0	0	2
Pennsylvania:												
Philadelphia.....	2	0	2	0	2	0	18	3	10	0	0	32
Pittsburgh.....	0	0		0		1	5	2	12	0	0	21
Reading.....	0	0		0		0	1	0	3	0	0	3
EAST NORTH CENTRAL												
Ohio:												
Cincinnati.....	2	0		0		2	3	5	14	0	0	4
Cleveland.....	2	0		0	1	3	5	14	17	0	0	46
Columbus.....	3	0		0	4	0	3	1	3	0	0	4
Indiana:												
Fort Wayne.....	0	0		0	1	0	3	0	0	0	0	2
Indianapolis.....	2	0	2	0		0	3	0	4	0	0	10
South Bend.....	0	0		0		0	0	0	0	0	0	
Terre Haute.....	0	0		0		0	0	0	1	0	0	
Illinois:												
Chicago.....	1	0		1	60	2	16	6	23	0	0	13
Michigan:												
Detroit.....	2	0		1	4	0	14	4	21	0	0	62
Flint.....	0	0		0		0	3	0	2	0	0	
Grand Rapids.....	0	0		0	4	0	0	0	4	0	0	11
Wisconsin:												
Kenosha.....	0	0		0	2	0	0	0	1	0	0	2
Milwaukee.....	0	2		0		0	4	0	3	0	0	17
Racine.....	0	0		0		0	0	0	2	0	0	5
Superior.....	0	0		0	2	0	0	0	0	0	0	4
WEST NORTH CENTRAL												
Minnesota:												
Duluth.....	1	0		0		0	1	0	7	0	0	23
St. Paul.....	0	0		0	1	0	2	0	4	0	0	25
Missouri:												
Kansas City.....	0	0		0		0	0	0	2	0	0	1
St. Joseph.....	0	0		0		0	0	0	2	0	0	
St. Louis.....	1	0	1	1	1	2	9	0	0	0	0	5

\*In some instances the figures include nonresident cases.



Division, State, and City	Diphtheria cases	Eneerphallitis, infections, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Pollomyelitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
<b>WEST NORTH CENTRAL—continued</b>												
Nebraska:												
Omaha.....	0	0		0	1	0	1	1	6	0	0	
Kansas:												
Wichita.....	0	0		0		0	4	0	0	0	0	
<b>SOUTH ATLANTIC</b>												
Delaware:												
Wilmington.....	0	0		0		0	1	0	3	0	0	
Maryland:												
Baltimore.....	2	0	2	0		1	7	1	6	0	0	
Cun berland.....	2	0		0		0	2	0	0	0	0	
Frederick.....	0	0		0		0	0	0	0	0	0	
District of Columbia:												
Washington.....	0	0		1	1	0	2	1	10	0	0	
Virginia:												
Lynchburg.....	1	0		0		0	1	0	3	0	0	
Richmond.....	0	0		0		0	1	1	7	0	0	
Roadroke.....	0	0		0		0	0	0	1	0	0	
West Virginia:												
Wheeling.....	0	0		0		0	1	0	0	0	0	
North Carolina:												
Raleigh.....	0	0		0		0	0	0	0	0	0	
Wilmington.....	1	0		0		0	2	0	1	0	0	
Winston-Salem.....	0	0		0	1	0	0	0	2	0	0	
South Carolina:												
Charleston.....	0	1	25	0		0	2	0	1	0	0	
Georgia:												
Atlanta.....	0	0		0		0	2	0	6	0	0	
Brunswick.....	0	0		0		0	0	0	0	0	0	
Savannah.....	0	0		0		0	0	0	2	0	0	
Florida:												
Tampa.....	1	1		0	1	0	0	0	0	0	0	
<b>EAST SOUTH CENTRAL</b>												
Tennessee:												
Memphis.....	1	0		0	11	0	11	0	0	0	0	
Nashville.....	1	0		1	0	0	0	1	3	0	0	
Alabama:												
Birmingham.....	2	0		0		0	3	0	3	0	0	
Mobile.....	1	0		1		0	1	0	0	0	0	
<b>WEST SOUTH CENTRAL</b>												
Arkansas:												
Little Rock.....	0	0		0		0	0	0	0	0	0	
Louisiana:												
New Orleans.....	0	0		0	1	0	2	2	0	0	3	
Shreveport.....	0	0		0		0	4	0	0	0	0	
Oklahoma:												
Oklahoma City.....	0	0		0			2	0	0	0	0	
Texas:												
Dallas.....	0	0	1	1		1	0	0	4	0	0	
Houston.....	0	0		0	1	0	3	0	2	0	0	
San Antonio.....	0	0		0		0	3	0	0	0		



## City reports for week ended Nov. 8, 1947—Continued

Division, State, and City	Diphtheria cases	Encephalitis, infectious, cases	Influenza		Measles cases	Meningitis, meningococcus, cases	Pneumonia deaths	Polymyellitis cases	Scarlet fever cases	Smallpox cases	Typhoid and paratyphoid fever cases	Whooping cough cases
			Cases	Deaths								
PACIFIC												
Washington:												
Seattle.....	0	0	-----	0	2	0	3	2	0	0	0	11
Spokane.....	0	0	-----	0	1	0	0	0	2	0	0	-----
Tacoma.....	0	0	-----	0	8	0	0	0	0	0	0	-----
California:												
Los Angeles.....	2	0	2	1	5	0	2	3	15	0	0	9
Sacramento.....	0	0	-----	0	1	0	0	0	1	0	0	-----
San Francisco.....	0	0	4	0	2	0	4	0	7	0	2	9
Total.....	54	5	43	10	269	17	245	64	324	0	12	613
Corresponding week, 1946 <sup>1</sup>	66	-----	31	10	308	-----	260	-----	345	0	14	526
Average, 1942-46 <sup>1</sup>	88	-----	75	16	408	-----	304	-----	624	0	15	670

<sup>1</sup> Exclusive of Oklahoma City.<sup>2</sup> 3-year average, 1944-46.<sup>3</sup> 5-year median, 1942-46.

Anthrax.—Cases: Philadelphia 1.

Dysentery, amebic.—Cases: New York 4; Newark 1; Philadelphia 1; Chicago 1; New Orleans 2; Los Angeles 4; San Francisco 1.

Dysentery, bacillary.—Cases: Worcester 1; New York 1; Denver 2; Los Angeles 8.

Dysentery, unspecified.—Cases: Baltimore 3.

Rocky Mountain spotted fever.—Cases: New York 1.

Typhus fever, endemic.—Cases: Atlanta 1; New Orleans 1.

## Rates (annual basis) per 100,000 population, by geographic groups, for the 85 cities in the preceding table (latest available estimated population, 33,841,700)

	Diphtheria case rates	Encephalitis, infectious, case rates	Influenza		Measles case rates	Meningitis, meningococcus, case rates	Pneumonia death rates	Pollomyelitis case rates	Scarlet fever case rates	Smallpox case rates	Typhoid and paratyphoid fever case rates	Whooping cough case rates
			Case rates	Death rates								
New England.....	20.9	0.0	0.0	0.0	107	2.6	52.3	13.1	89	0.0	2.6	222
Middle Atlantic.....	7.9	0.5	1.9	0.9	37	1.9	39.8	6.5	35	0.0	1.4	60
East North Central.....	7.4	1.2	1.2	1.2	48	4.3	33.1	18.4	58	0.0	0.0	110
West North Central.....	5.1	0.0	2.5	2.5	8	5.1	43.2	2.5	69	0.0	2.5	145
South Atlantic.....	11.7	3.3	45.2	1.7	5	1.7	35.2	5.0	70	0.0	0.0	137
East South Central.....	29.5	0.0	0.0	11.8	68	0.0	88.5	5.9	35	0.0	0.0	30
West South Central.....	0.0	0.0	2.6	2.6	5	2.6	42.1	5.3	16	0.0	13.2	8
Mountain.....	7.9	0.0	15.9	0.0	56	7.9	55.6	23.8	111	0.0	0.0	191
Pacific.....	3.2	0.0	9.5	1.6	71	0.0	14.2	7.9	40	0.0	3.2	46
Total.....	8.3	0.8	6.6	1.5	42	2.6	37.9	9.9	50	0.0	1.9	95

## TERRITORIES AND POSSESSIONS

## Puerto Rico

*Notifiable diseases—5 weeks ended November 1, 1947.*—During the 5 weeks ended November 1, 1947, cases of certain notifiable diseases were reported in Puerto Rico as follows:

Disease	Cases	Disease	Cases
Chickenpox.....	23	Syphilis.....	193
Diphtheria.....	45	Tetanus.....	13
Dysentery, unspecified.....	2	Tetanus, infantile.....	2
Gonorrhea.....	201	Tuberculosis (all forms).....	846
Influenza.....	255	Typhoid fever.....	16
Malaria.....	668	Typhus fever (murine).....	7
Measles.....	195	Whooping cough.....	220
Poliomyelitis.....	4		

## DEATHS DURING WEEK ENDED NOV. 8, 1947

[From the Weekly Mortality Index, issued by the National Office of Vital Statistics]

	Week ended Nov. 8, 1947	Correspond- ing week, 1946
Data for 93 large cities of the United States:		
Total deaths.....	8,638	8,663
Median for 3 prior years.....	8,663	
Total deaths, first 45 weeks of year.....	411,990	405,868
Deaths under 1 year of age.....	688	771
Median for 3 prior years.....	600	
Deaths under 1 year of age, first 45 weeks of year.....	33,163	20,690
Data from industrial insurance companies:		
Policies in force.....	67,082,670	67,327,836
Number of death claims.....	9,359	8,958
Death claims per 1,000 policies in force, annual rate.....	7.3	6.9
Death claims per 1,000 policies, first 45 weeks of year, annual rate.....	9.2	9.4

## FOREIGN REPORTS

## CANADA

*Provinces—Communicable diseases—Week ended October 25, 1947.*—During the week ended October 25, 1947, cases of certain communicable diseases were reported by the Dominion Bureau of Statistics of Canada as follows:

Disease	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Chickenpox		9	2	99	163	44	44	40	68	469
Diphtheria		3		16	1			14		34
Dysentery, bacillary				1					7	8
Encephalitis, infectious							1			1
German measles		1		1	14			2	6	25
Influenza		9			3					13
Measles		1		140	54	13	15	20	6	249
Meningitis, meningococcus						1				1
Mumps		20	1	23	364	27	12	10	10	467
Poliomyelitis				5	19	6	4	7	6	47
Scarlet fever		8	17	39	79			1	16	160
Tuberculosis (all forms)		9	29	92	36	37			46	249
Typhoid and paratyphoid fever				8	2		1			11
Undulant fever				3					4	7
Venereal diseases:										
Gonorrhoea		13	14	95	134	38	27	46	57	424
Syphilis		12	10	67	67	15	7	8	29	215
Other forms									8	8
Whooping cough		2		26	87	20	3	31	16	185

## FINLAND

*Notifiable diseases—September 1947.*—During the month of September 1947, cases of certain notifiable diseases were reported in Finland as follows:

Disease	Cases	Disease	Cases
Cerebrospinal meningitis	17	Paratyphoid fever	275
Diphtheria	549	Poliomyelitis	38
Dysentery	11	Scarlet fever	191
Gonorrhoea	1,600	Syphilis	309
Malaria	2	Typhoid fever	48

**REPORTS OF CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND  
YELLOW FEVER RECEIVED DURING THE CURRENT WEEK**

NOTE.—Except in cases of unusual incidence, only those places are included which had not previously reported any of the above-mentioned diseases, except yellow fever, during recent months. All reports of yellow fever are published currently.

A table showing the accumulated figures for these diseases for the year to date is published in the PUBLIC HEALTH REPORTS for the last Friday in each month.

**Cholera**

*Egypt.*—The following daily reports of cholera in Egypt have been received: November 3, 1947, 530 cases, 287 deaths, including 7 cases, 2 deaths in Alexandria, 1 case in Cairo, 2 fatal cases in Damietta, 1 case in Ismailiya, 1 case in Port Said; November 4, 459 cases, 247 deaths, including 6 cases, 1 death in Alexandria, 1 fatal case in Cairo, 1 case in Damietta; November 5, 398 cases, 170 deaths, including 3 cases, 2 deaths in Alexandria, 1 case in Cairo, 1 fatal case in Ismailiya, 1 case in Port Said; November 6, 368 cases, 181 deaths, including 1 case in Alexandria, 1 case in Damietta, 1 case in Ismailiya; November 7, 306 cases, 189 deaths, including 2 cases in Alexandria, 1 case in Cairo, 2 cases in Port Said; November 8, 275 cases, 175 deaths, including 2 cases in Alexandria. The total number of reported cases to date is 20,736 with 10,108 deaths.

**Plague**

*Portugal—Azores.*—Plague has been reported in Azores, Portugal, as follows: Week ended September 6, 1947, 1 case; week ended September 20, 1947, 1 case.

**Smallpox**

*Algeria.*—Smallpox has been reported in Algeria as follows: September 1–30, 1947, 19 cases; October 1–10, 1947, 20 cases.

**Yellow Fever**

*Brazil.*—For the month of June 1947, yellow fever was reported in Brazil as follows: 1 death in Itajupe, Bahia State; 1 death in Nova Timboteua, Para State.

*Sudan (French)—Bamako.*—On November 6, 1947, 1 fatal case of yellow fever was reported in Bamako, French Sudan.

**FEDERAL SECURITY AGENCY**  
**UNITED STATES PUBLIC HEALTH SERVICE**  
**THOMAS PARRAN, *Surgeon General***

**DIVISION OF PUBLIC HEALTH METHODS**

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It contains (1) current information regarding the incidence and geographic distribution of communicable diseases in the United States, insofar as data are obtainable, and of cholera, plague, smallpox, typhus fever, yellow fever, and other important communicable diseases throughout the world; (2) articles relating to the cause, prevention, and control of disease; (3) other pertinent information regarding sanitation and the conservation of the public health.

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